

REMARKS/ARGUMENTS

Claims 1-13 are pending in the present application. With this amendment, claims 1, 5-6, 8, and 12-13 have been amended, claim 7 has been canceled, and claims 14-15 have been added. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 103. Obviousness

The examiner has rejected claims 1, 2, 5, 6, 7, 8, 9, 12, 13 under 35 U.S.C. § 103(a) as being unpatentable over U. S. Patent 6,950,772 issued to *Callway* in view of U. S. Patent 4,450,560 issued to *Conner*. This rejection is respectfully traversed.

Applicants have amended claims 1 and 8 to describe a plurality of multiplexers receiving specific test signals. These multiplexers combine test signals received for each test signal group to create a plurality of test signal groups. Mapping logic then receives one of the test signal groups from each one of the multiplexers. The mapping logic then maps one of the test signal groups to any one of the outputs of the mapping logic to output as a test output group.

Neither *Callway* nor *Conner* describes, teaches, or suggests a plurality of multiplexers that combine test signals to create a plurality of test signal groups. Neither *Callway* nor *Conner* describes, teaches, or suggests mapping logic that receives one of the test signal groups from each one of the multiplexers or mapping logic that maps one of the test signal groups to any one of the outputs of the mapping logic to output as a test output group.

Because neither *Callway* nor *Conner* describes, teaches, or suggests, either singly or in combination, the features of claims 1 and 8, the combination of *Callway* and *Conner* does not render claims 1 or 8 obvious.

Claims 5 and 12 have been amended to describe the mapping logic including a plurality of mapping multiplexers. Each one of the mapping multiplexers receives the plurality of test signal groups. Each one of the mapping multiplexers generates a different one of the outputs of the mapping logic. Each one of the mapping multiplexers selects one of the test signal groups to output as a test output group.

Neither *Callway* nor *Conner* describes, teaches, or suggests mapping logic that includes a plurality of mapping multiplexers. Neither reference describes, teaches, or suggests each one of the mapping multiplexers receiving the plurality of test signal groups and generating a different one of the outputs of the mapping logic where each one of the mapping multiplexers selects one of the test signal groups to output as a test output group.

Because neither *Callway* nor *Conner* describes, teaches, or suggests, either singly or in combination, the features of claims 5 and 12, the combination of *Callway* and *Conner* does not render claims 5 or 12 obvious.

New claims 14-15 describe mapping logic that maps a first one of the plurality of test signal groups, which was received from a first one of the plurality of multiplexers, to a first one of the plurality of outputs of the mapping logic to output as a first test output group; the mapping logic mapping a second one of the plurality of test signal groups, which was received from a second one of the plurality of multiplexers, to a second one of the plurality of outputs of the mapping logic to output as a second test output group; and the first one of said plurality of test signal groups and the second one of the plurality of test signal groups being the same signal type of signal.

Because neither *Callway* nor *Conner* describes, teaches, or suggests, either singly or in combination, the features of claims 14 and 15, the combination of *Callway* and *Conner* does not render claims 14 or 15 obvious.

Because the combination of *Callway* and *Conner* does not describe, teach, or suggest the combination of features claimed by Applicants, the combination of *Callway* and *Conner* does not render Applicants claims obvious.

The examiner has rejected claims 3 and 10 under 35 U.S.C. § 103(a) as being unpatentable over *Callway* and *Conner* and further in view of U.S. Patent 5,389,885 issued to *Swart*. This rejection is respectfully traversed.

These claims describe concurrently observing test signals for a plurality of modules in combination with a plurality of multiplexers receiving specific test signals where these multiplexers combine test signals received for each test signal group to create a plurality of test signal groups, mapping logic that receives one of the test signal groups from each one of the multiplexers, and where the mapping logic maps one of the test signal groups to any one of the outputs of the mapping logic to output as a test output group. The combination of *Callway*, *Conner*, and *Swart* does not describe, teach, or suggest the combination of features claimed by Applicants. Therefore, the combination of *Callway*, *Conner*, and *Swart* does not render Applicants obvious.

The examiner has rejected claims 4 and 11 under 35 U.S.C. § 103(a) as being unpatentable over *Callway*, *Conner*, and *Swart* and further in view of U.S. Patent 5,604,432 issued to *Moore*. This rejection is respectfully traversed.

These claims describe concurrently observing test signals for a plurality of modules where the plurality of modules includes identical modules in combination with a plurality of multiplexers receiving specific test signals where these multiplexers combine test signals received for each test signal group to create a plurality of test signal groups, mapping logic that receives one of the test signal groups from each

one of the multiplexers, and where the mapping logic maps one of the test signal groups to any one of the outputs of the mapping logic to output as a test output group. The combination of *Callway*, *Conner*, *Swart*, and *Moore* does not describe, teach, or suggest the combination of features claimed by Applicants. Therefore, the combination of *Callway*, *Conner*, and *Swart* does not render Applicants obvious.

The remaining claims depend from the claims discussed above and are patentable for the reasons given above.

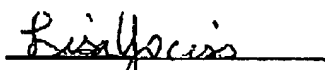
II. Conclusion

It is respectfully urged that the subject application is patentable over *Callway*, *Conner*, and *Swart* and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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